Mechanical Installation Guide

Listed below are installation guidelines for trouble free operation of optical systems.

1. The detector should be attached to comparatively rigid, vibration free mountings.

2. The detector orientation shall be as detailed in figure 1 below to ensure:
   a. The IP rating of the detector is not affected.
   b. The 90° horizontal field of view is maintained.
   c. The video aspect output is correct.

3. The front and rear enclosure covers shall be fully screwed onto the enclosure body and the grub screws tightened to ensure the hazardous area certification is maintained.

4. As with conventional video cameras the detector should not face directly towards the sun. In such conditions the detectors automatic exposure control will darken the image in order to avoid over exposure; the resulting picture may not be ideal for surveillance purposes. In the case of an offshore vessel or platform, the detector should ideally be placed facing inwards towards the plant and with minimal view of the horizon.

Figure 1: FDS301 Orientation

Status led must be directly below the lens.
Electrical Installation Guide

The wiring terminals are located in the rear section of the detector enclosure and are accessible by removal of the end cap.

1. The detector enclosure is to be connected to a local earth and the detector cable screens (shields) should be cut back to the crotch and not terminated within the detector.

2. The terminal schematic (figure 2) detailed below shows the view looking inside the detector following removal of the end cap.

3. The detector can be configured for two types of alarm output:
   a. 4-20mA current source or sink (option for alarm relay also available)
   b. Standard Relay (Alarm & Fault)

---

**Figure 2: FDS301 Orientation**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>+24Vdc power</td>
<td>1</td>
<td>+24Vdc power</td>
</tr>
<tr>
<td>9</td>
<td>0V Power</td>
<td>2</td>
<td>0V Power</td>
</tr>
<tr>
<td>10 (C)</td>
<td>Not connected</td>
<td>3 (A)</td>
<td>Spare</td>
</tr>
<tr>
<td>11 (D)</td>
<td>Not connected</td>
<td>4 (B)</td>
<td>4-20mA Signal</td>
</tr>
<tr>
<td>12</td>
<td>Not connected</td>
<td>5</td>
<td>Video +</td>
</tr>
<tr>
<td>13</td>
<td>Not connected</td>
<td>6</td>
<td>Video -</td>
</tr>
<tr>
<td>14</td>
<td>RS485B (Comms)</td>
<td>7</td>
<td>RS485A (Comms)</td>
</tr>
</tbody>
</table>

---

a. 4-20mA Configuration

b. Standard Relay Configuration

---

If further details are required, full wiring details are available from: FDS301 SAFETY & TECHNICAL MANUAL – Ref: 2200.5009

---

In the UK & Europe

MICROPACK (Engineering) Ltd
Fire Training Centre, Schoolhill, Portlethen, Aberdeen AB12 4RR
Tel: +44 (0)1224 784055
Fax: +44 (0)1224 784056
Email: sales@micropack.co.uk
micropack.co.uk

In the Americas

MICROPACK Detection (Americas) Inc
1227 Lakecrest Court, Fort Collins, Colorado, 80526
Tel: +1 970 377 2290
Fax: +1 970 377 2723
Email: info@micropackamericas.com
micropackamericas.com

Subject to modifications. © 2015 Micropack (Engineering) Ltd.